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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,258	07/15/2003	Vinoj N. Kumar	I-1	9759

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EXAMINER

NASH, LASHANYA RENEE

ART UNIT	PAPER NUMBER
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2153

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07/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/620,258	Applicant(s) KUMAR ET AL.	
	Examiner LaShanya R. Nash	Art Unit 2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response a request for continued examination filed 02 May 2007.

Claims 1-17 are being considered. Claims 1,16 and 17 are currently amended.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02 May 2007 has been entered.

Response to Arguments

Applicant's arguments, see Remarks page 6, filed 16 April 2007, with respect to the rejection of claims 1-13 under 35 USC §102(e) and 14-17 under 35 USC §103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of a new interpretation of a previously applied reference, St. Hontas, in light of the amendments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, II (US Patent 7,013,255) in view of St. Hontas et al. ["ATM Traffic Generator Card. An Integrated Solution." –retrieved from IEEE], hereinafter referred to as Smith and St. Hontas respectively.

In reference to claim 1, Smith discloses a method for simulating both burst and normal type traffic in a telecommunications network, (abstract; column 1, lines 25-65).

Smith discloses:

- A method (Figure 3) of generating data traffic in a traffic generator, the method comprising the steps of (column 6, lines 15-30):
- Generating a first type of traffic (Figure 3-item 112) in accordance with a given distribution (i.e. normal distributed traffic; column 2, lines 10-30; column 2, lines 49-55); and
- Generating a second type of traffic different than the first type of traffic (Figure 3-item 108 and Figure 3-item 124), the second type of traffic comprising at least one traffic burst (i.e. lognormal distributed traffic; column 2, lines 32-48);
- Wherein the traffic burst is generated based at least in part on an amount of the first type of traffic generated over one or more time intervals (i.e. bimodal distributed traffic; column 3, lines 24-45; column 6, lines 30-45; Figure 3-item 132).

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However, the reference fails to show the method wherein a determination as to whether or not the traffic burst is generated for a given time interval is based at least in part on an amount of the first type of traffic generated over one or more previous time intervals. Nonetheless, this was a well-known feature in the art at the time of the invention, as further evidenced by St. Hontas. It would have been obvious to accordingly modify the method of Smith, for one of ordinary skill in the art at the time of the invention.

In an analogous art, St. Hontas discloses an ATM traffic generator for generating constant-bit-rate and bursty traffic streams, (*1. Introduction*; page 1). St. Hontas discloses a method for generating burst traffic, wherein a determination as to whether or not the traffic burst is generated for a given time interval (i.e. burst interval or silence interval; *3. Source model of the Generator*, page 2) is based at least in part on an amount of the first type of traffic generated over one or more previous time intervals (i.e. dependencies between a burst and the following silence, or autocorrelative laws between bursts from cycle to cycle; *4.1.1 The core software part*; page 3; Figure 1). One of ordinary skill in the art would have been so motivated to accordingly modify the method of Smith, so as to provide flexibility to emulate a wide range of ATM traffic profiles (St. Hontas, Abstract).

In reference to claims 16 and 14, Smith discloses a method for simulating both burst and normal type traffic in a telecommunications network, (abstract; column 1, lines 25-65). Smith discloses:

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- An apparatus (i.e. generator; Figure 2) for generating data traffic in a traffic generator, the device implementing a traffic generator operative (column 5, lines 53-65; column 6, lines 15-30):
- To generate a first type of traffic (Figure 3-item 112) in accordance with a given distribution (i.e. normal distributed traffic; column 2, lines 10-30; column 2, lines 49-55); and
- To generate a second type of traffic different than the first type of traffic (Figure 3-item 108 and Figure 3-item 124), the second type of traffic comprising at least one traffic burst (i.e. lognormal distributed traffic; column 2, lines 32-48);
- Wherein the traffic burst is generated based at least in part on an amount of the first type of traffic generated over one or more time intervals (i.e. bimodal distributed traffic; column 3, lines 24-45; column 6, lines 30-45; Figure 3-item 132).

However, the reference fails to disclose that the aforementioned apparatus having a processor and a memory; and wherein a determination as to whether or not the traffic burst is generated for a given time interval is based at least in part on an amount of the first type of traffic generated over one or more previous time intervals [claim 16]; and a hardware traffic generator [claim 14]. Nonetheless, these were well-known features in the art at the time of the invention, as further evidenced by St. Hontas. It would have been obvious to accordingly modify the teachings of Smith, for one of ordinary skill in the art at the time of the invention.

In an analogous art, St. Hontas discloses an ATM traffic generator for generating constant-bit-rate and bursty traffic streams, (*1. Introduction*; page 1). St. Hontas discloses a method for generating burst traffic, wherein a determination as to whether or not the traffic burst is generated for a given time interval (i.e. burst interval or silence interval; *3. Source model of the Generator*, page 2) is based at least in part on an amount of the first type of traffic generated over one or more previous time intervals (i.e. dependencies between a burst and the following silence, or autocorrelative laws between bursts from cycle to cycle; *4.1.1 The core software part*; page 3; Figure 1). One of ordinary skill in the art would have been so motivated to accordingly modify the apparatus of Smith, so as to provide flexibility to emulate a wide range of ATM traffic profiles (St. Hontas, Abstract). Also, St. Hontas discloses that the aforementioned architecture comprises hardware traffic generator, specifically a processor and memory (Figure 4; *4.2 The hardware part*; pages 4-5). One of ordinary skill in the art would have been so motivated to implement the traffic generator as hardware so as to promote design flexibility thereby allowing the apparatus to inter-work with a real traffic source and emulate the traffic profile (St. Hontas; *2. The main features of the generator*, page 1-2).

In reference to claims 17 and 15, Smith discloses a method for simulating both burst and normal type traffic in a telecommunications network, (abstract; column 1, lines 25-65). Smith discloses:

- A method (Figure 3) of generating data traffic in a traffic generator, the method comprising the steps of (column 6, lines 15-30):
- Generating a first type of traffic (Figure 3-item 112) in accordance with a given distribution (i.e. normal distributed traffic; column 2, lines 10-30; column 2, lines 49-55); and
- Generating a second type of traffic different than the first type of traffic (Figure 3-item 108 and Figure 3-item 124), the second type of traffic comprising at least one traffic burst (i.e. lognormal distributed traffic; column 2, lines 32-48);
- Wherein the traffic burst is generated based at least in part on an amount of the first type of traffic generated over one or more time intervals (i.e. bimodal distributed traffic; column 3, lines 24-45; column 6, lines 30-45; Figure 3-item 132).

However, the reference fails to disclose that the aforementioned method implemented via an article of manufacture comprising a storage medium containing one or more software programs for use in generating data traffic in a traffic generator, wherein the one or more software programs when executed implement the method steps; and wherein a determination as to whether or not the traffic burst is generated for a given time interval is based at least in part on an amount of the first type of traffic generated over one or more previous time intervals [claim 17]; and a software traffic generator [claim 15]. Nonetheless, these were well-known features in the art at the time of the invention, as further evidenced by St. Hontas. It would have been obvious to

accordingly modify the teachings of Smith, for one of ordinary skill in the art at the time of the invention.

In an analogous art, St. Hontas discloses an ATM traffic generator for generating constant-bit-rate and bursty traffic streams, (*1. Introduction*; page 1). St. Hontas discloses a method for generating burst traffic, wherein a determination as to whether or not the traffic burst is generated for a given time interval (i.e. burst interval or silence interval; *3. Source model of the Generator*, page 2) is based at least in part on an amount of the first type of traffic generated over one or more previous time intervals (i.e. dependencies between a burst and the following silence, or autocorrelative laws between bursts from cycle to cycle; *4.1.1 The core software part*; page 3; Figure 1). One of ordinary skill in the art would have been so motivated to accordingly modify the apparatus of Smith, so as to provide flexibility to emulate a wide range of ATM traffic profiles (St. Hontas, Abstract). Also, St. Hontas discloses that the aforementioned architecture comprises software traffic generator, specifically an article of manufacture comprising a storage medium containing one or more software programs for use in generating data traffic in a traffic generator, wherein the one or more software programs when executed implement the method steps (Figure 3; *4.1 The software part*; pages 3-4). One of ordinary skill in the art would have been so motivated to implement the traffic generator as software so as to promote design flexibility thereby allowing the apparatus to inter-work with a real traffic source and emulate the traffic profile (St. Hontas; *2. The main features of the generator*, page 1-2).

In reference to claim 2, Smith shows the method wherein the step of generating the second type of traffic further comprises accumulating traffic over one or more of the time intervals for which the first type of traffic is generated, and generating the traffic burst based at least in part on the accumulated traffic (i.e. percentage of the total number of packets in a specified time interval; column 6, lines 30-45).

In reference to claim 3, Smith shows the method wherein the first type of traffic comprises comparative traffic characteristic of non-burst traffic (i.e. column 2, lines 49-55; column 5, lines 53-65).

In reference to claim 4, Smith shows the method wherein the given distribution comprises a Poisson distribution (column 1, lines 35-45).

In reference to claim 5, Smith shows the method wherein the given distribution comprises a Gaussian distribution (column 5, lines 40-52).

In reference to claim 6, Smith shows the method wherein the step of generating the second type of traffic further comprises the step of determining, for each of the one or more time intervals, if an amount of the traffic of the first type generated during that interval is less than a comparison level, and if so adding an amount of compensatory traffic (i.e. composite traffic) to a burst container having a capacity given by a burst size

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(column 2, line 55- column 3, line 2; column 6, line 58-column 7, line 3).

In reference to claim 7, Smith shows the method wherein the traffic burst is generated when a total amount of accumulated traffic in the burst container is greater than or equal to the burst size (i.e. the total number of data packets of this type; column 6, lines 46-57; column 2, line 55- column 3, line 2).

In reference to claim 8, Smith shows the method wherein the burst size is determined as a function of a mean burst size and a corresponding variation range, (column 6, lines 31-45).

In reference to claim 9, Smith shows the method of wherein the amount of compensatory traffic comprises an amount of traffic given by a compensatory-accumulation size (i.e. total number of values generated by each generator; column 6, line 58-column 7, line 3).

In reference to claim 10, Smith shows the method wherein the compensatory-accumulation size is determined as a function of a mean compensatory-accumulation size and a corresponding variation range (column 6, lines 31-45).

In reference to claim 11, Smith shows the method wherein the one or more time intervals each comprise sample slot times (column 7, lines 20-38).

In reference to claim 12, Smith shows the method wherein the step of generating the second type of traffic further comprises generating a plurality of traffic bursts, wherein a given one of the traffic bursts is generated by: determining a current burst size and a current compensatory-accumulation size (column 2, line 55- column 3, line 2); creating an initially-empty burst container having a capacity that is equal to the burst size; adding compensatory traffic to the burst container whenever the total traffic of the first type generated within a given sample slot time is less than a comparison level, such that for each such addition of compensatory traffic, a level of traffic in the burst container increases by the compensatory-accumulation size; and generating the given traffic burst when the burst container level is greater than or equal to the burst size (column 6, line 58-column 7, line 38).


In reference to claim 13, Smith shows the method wherein the traffic of the second type comprises a plurality of traffic bursts which are generated in a manner which tends to compensate for temporary reductions in the amount of traffic of the first type so as to substantially maintain a particular level of traffic flow (column 6, lines 15-30; column 7, lines 29-38).

Conclusion

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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July 17, 2007



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